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SUBJECT: Thailand Hopes for Nuclear Power by 2020

REF: Bangkok 3711

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11. (SBU) SUMMARY: Thailand's 2007-2021 Power Development Plan (PDP) calls for nuclear production of electricity by 2020. Newly-revised goals call for 1,000 MW from nuclear power in each of four years beginning in 2020, which would account for about five percent of total electricity use. Authorities admit that their public relations program has so far been lacking, even though they expect that gaining public acceptance will be key to the program's success. The next milestone will be completion of a feasibility study by Burns and Roe (Asia) in May 2010. Thailand, a member of IAEA, would welcome additional international interaction, especially assistance from the United States, in the development of its program. END SUMMARY.

## Progress towards Nuclear Energy

- 12. (SBU) In a recent meeting with Econoff, officials from Thailand's Nuclear Power Project Development Office (NPPDO) outlined the progress of Thailand's nuclear energy program and the role nuclear energy will play in the future of the country. More ambitious projections have been revised down to 1,000 MW for four years beginning in 2020. This would be roughly five percent of Thailand's energy needs, and officials are hopeful that the program will continue to make progress and reach its immediate goals, such as the completion of the feasibility study by Burns and Roe (Asia) in May 12010.
- 13. (SBU) The feasibility study will answer several significant questions, substantially determining the direction of the program. First, Burns and Roe has created a list of fifteen potential construction sites by using criteria from the International Atomic Energy Agency (IAEA) and will submit five from that list to the Electricity Generating Authority of Thailand (EGAT). EGAT will then choose three sites from the list of five and submit that list to the Cabinet. Second, the feasibility study will provide guidance on what technology would best suit the program. Thai officials have not yet decided whether they will build a pressurized water reactor, a boiling water reactor or another system. Finally, the study will analyze the cost of construction and operation. NPPDO officials said that they see the costs of reactor construction rising throughout the world and they will press Burns and Roe to provide accurate cost estimates for construction in the out years.
- 14. (SBU) NPPDO officials told Econoff that Thailand has a long history of interest and research in nuclear science. In fact, this is the third significant effort to develop nuclear power for electricity production. The first plan was shelved in 1976 after the discovery of natural gas in the Gulf of Thailand. The second plan was stopped in the late-1990s by the Asian economic crisis. NPPDO officials cited this history as an advantage for Thailand. They asserted that these prior preparations make realistic the training of

a needed workforce for a 2020 production date.

- 15. (SBU) Thailand's Office of Atoms for Peace (OAP) has operated a 1.2 MW nuclear research reactor near Bangkok for more than forty years. Chulalongkorn University, Thailand's leading educational institution, has a graduate program in nuclear engineering, with about thirty graduates per year. NPPDO officials said that the university would begin an undergraduate program and expand the graduate program if Thailand decides to "go nuclear" in 2011, and that Thailand has "advanced and sophisticated" programs in related subjects, such as nuclear and radiation science in the fields of medicine, agriculture, and industry.
- 16. (SBU) The Royal Thai Government (RTG) has received frequent contact and visits from vendors and regulators from many countries, including the United States, France, China, Japan, Belgium, Russia, and the Republic of Korea. Officials anticipate that these relationships will become more focused and concrete after the study is complete and the details of the selected technology become clear. NPPDO officials told Econoff that they are very interested in any kind of international support and guidance and would like to be included in the international discussion about nuclear energy.

Obstacles

17. (SBU) With regard to government support, NPPDO officials noted that their work has not been hampered by politicians in any way, that their budget has remained intact in spite of the economic downturn, and that Prime Minister Abhisit Vejjajiva chairs the National Energy Policy Council (NEPC) himself, unlike in previous administrations. Nevertheless, the Abhisit government has yet to express support publicly for the program.

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- ¶8. (SBU) Although Thai officials are generally positive about the work that NPPDO, EGAT, and other relevant organizations have accomplished, they noted that significant public outreach is needed. They told Econoff that groups, especially in rural areas, protest plans for the development of any kind of major infrastructure project, such as a conventional power plant, and that a nuclear reactor would no doubt be a lightning rod for these sentiments.
- 19. (SBU) Senator Lertrat Ratanavanich, the chairman of the Senate's Energy Standing Committee, shared similar reservations with us about future public reaction. He anticipates significant protest from non-governmental organizations, and believes that Abhisit's Democrat Party would be unlikely to give strong public support to the nuclear program in the current, fragile political situation for fear of supporting anything that would be unpopular with the public. The Senator believes that the nuclear power program will ultimately go forward, but

the  $20\dot{20}$  goal for nuclear power may be optimistic and that 2025 might be more realistic.

Nuclear Power as Part of the Energy Solution

- 110. (SBU) The Ministry of Energy estimates that demand for energy and specifically electricity will roughly double in Thailand by the year 2025. Thailand's energy strategy has identified increasing energy demand and the need to diversify energy sources. Today, Thailand relies heavily on natural gas which contributes as much as 70 percent of all electricity in the country. Natural gas comes primarily from two sources: Two thirds from Thai extraction from the Gulf of Thailand and one third from imports from Burma. NPPDO officials speculated that the gulf reserves would only last another twenty years.
- 111. (SBU) Moreover, there is growing concern that the natural gas supply from Burma may not be reliable. This vulnerability received particular attention last August, when the gas pipeline from Burma's Yadana field was shut down for two hours shortly after the RTG

publicly criticised Burma for the imprisonment of Aung San Suu Kyi. To avoid a blackout in western Thailand, EGAT released water from the Srinakarin Dam, causing flooding in the province of Kanchanaburi. Burmese officials say the timing was coincidental, citing technical problems, but Thai businesspeople and the press speculated that it was a political gesture. Whether the interruption in service was intentional or not, the event focused public attention on the vulnerability of Thailand's gas supply from Burma. NPPDO officials dismissed the idea that the Burmese government would use the gas supply as a political weapon, saying it would be like "Russia turning off the gas to Europe," but they agreed with public sentiment that Thailand is too dependent on natural gas, especially from potentially unreliable neighbor.

112. (SBU) The energy policy of the Abhisit administration stresses environmentally-friendly sources that will provide price stability and security. NPPDO officials said that nuclear energy is attractive because it satisfies these goals. They believe that public support can be built though proper education, including alleviating concerns about safety.

Comment

113. (SBU) COMMENT: The NPPDO, EGAT, and OAP officials who met with us are serious scientists and professionals committed to the creation of a nuclear power program. They have a practical sense of the political and economic situation in Thailand and are earnestly trying to navigate the obstacles in front of them. Although they are justifiably worried about public reaction to nuclear development and the most difficult tests are yet to come, these officials are optimistic that a nuclear power program can be set up in Thailand. Energy development is among the most serious challenges facing the country in the next few decades. Officials working on nuclear development here would welcome assistance from the United States, their long-time ally, in technical, regulatory and commercial realms. END COMMENT.